

REMARKS

The Office action of April 4, 2008, has been carefully considered.

Objections have been raised to Claims 1 and 3, and the claims have been amended to correct the terminology to which objection has been raised.

Claims 2-11 and 15 have been rejected under 35 USC 112, second paragraph, as being indefinite on a number of points.

Claim 2 has been amended to change "support material" to "carrier material."

Claims 3 and 5 are alleged to be indefinite by their recitation of the quantity of enzymes in terms of international units. However, Applicant points out that one international unit is defined as the amount of an enzyme that will catalyze the transformation of one micromole of substrate per minute under standard conditions of temperature, optimal pH and optimal substrate concentration. Accordingly, a composition that defines the amount of enzyme presence in terms of international units is not indefinite; whatever quantity of composition is present and covered by the claim contains the recited number of international units.

Claims 4, 5, 6, 7, 10 and 11 have been amended to use standard Markush group language, and now recite the terminology "selected from the group consisting of...."

In Claim 9, the narrower range has been deleted, and a narrower range has been added to a new Claim 16.

Claim 15 has been amended to add the term "or."

Withdrawal of this rejection is requested.

Claims 1-7 and 9-15 have been rejected under 35 USC 103(a) over Montgomery et al in view of Dana, while Claims 1-15 have also been rejected under 35 USC 103(a) over Montgomery et al in view of Dana and further in view of Chaykin.

Montgomery et al discloses a chewable composition for an

animal foodstuff comprising a carrier material, at least one oxidoreductase and at least one oxidoreductase substrate, which is preferably D-glucose. However, as noted in the present specification at page 2, lines 30-32, it is always necessary in the prior art to use a substrate for the oxidoreductase, and this has disadvantages as far as stability is concerned both during manufacture of the product and for the finished product. Hence, the claimed invention does not contain a substrate for the oxidoreductase, and this is evident from the compositions disclosed.

In order to clarify the subject matter of the invention, Claim 1 has now been amended to recite that the composition does not contain a substrate for the oxidoreductase enzyme.

Moreover, the compositions exemplified by Montgomery et al are based on a single enzyme, glucose oxidase, while sulfite oxidase is disclosed in the specification without being exemplified.

Dana teaches dental care compositions comprising silica and at least one active agent for the treatment of teeth or gums. The active agent is selected from the group consisting of colostrum, lysozyme antibacterial agent, lactoperoxidase antibacterial agent, lactoferrin antibacterial agent, cellulase anti-plaque agent, glucose oxidase, etc.

In the claimed compositions, lactoperoxidase is present, but it is not used as an antibacterial agent, but rather as a peroxidase interacting with hydrogen peroxide to produce an antibacterial agent hypothiocyanate. Cellulase is not used as an anti-plaque agent, but rather as an enzyme capable of breaking down cellulose present in the oral cavity into glucose which is used as a substrate, and glucose oxidase is not used as a biochemical sugar-free agent as in Dana, but rather as an oxidoreductase enzyme for oxidizing glucose particles into glucuronate and hydrogen peroxide.

Chaykin teaches an oral composition for reducing plaque and calculus deposition comprising an ingestible surfactant, an ingestible sequestrant and an ingestible protein flocculant. The composition can further contain a stimulator for salivary flow such as a polycarboxylic acid, for example citric acid. Chaykin does not otherwise cure the defects of the cited references.

Dana thus discloses a long list of components which may be present in an oral composition, but does not specifically disclose or suggest that a composition such as that disclosed by Montgomery et al can be manufactured without a substrate for the oxidoreductase enzyme. Hence, the combination of references taken as a whole does not disclose or suggest the invention as claimed, and withdrawal of these rejections is requested.

In view of the foregoing amendments and remarks, Applicant submits that the present application is now in condition for allowance. An early allowance of the application with amended claims is earnestly solicited.

Respectfully submitted,



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